

Working in the Fermilab Data Centers

We are reminding our employees and contractors that no food or beverages are allowed in the Computing Division Data Centers and computer rooms (including transporting through a computer room - coffee spilled on a raised floor is a mess). These controlled environments include FCC2, FCC3, LCC and all parts of GCC including the tech areas and network rooms. The food or remaining trash from food attracts insects, ants and rodents. The small 4 gallon trash containers are for small amounts of trash from work being performed in the Data Centers. Small pieces of cellophane, tie raps, wire and other debris left on flat surfaces can be blown around the computer room with the velocity of air flow. Ultimately this material can end up inside facility cooling systems, computing equipment, network equipment or tape libraries.

We must be concerned with any activities that generate and inject dust and debris into the air in the Data Centers. There are many sources of particulates. Among the worst are packaging materials, clothing fibers, ceiling tiles, concrete and drywall, HVAC belts and motors and paper. Largely unseen by the naked eye, particulate circulating within a Data Center can accumulate and interfere with electronics causing a variety of potential problems, including failure of electronics circuits, media errors and data loss. No activity in the Data Center should generate large amounts of dust, debris or garbage. Specifically, this means cardboard and unpacking of materials in the Data Center. Contaminant producing activities should be staged outside of the controlled areas of the Data Centers. If you need assistance in planning new installations or modifications, contact cd_logistics@fnal.gov

Another significant source of dirt and dust in the Data Centers comes from people's shoes. Please ensure your shoes are clear of mud, dirt, salt, rocks and debris before entering the Data Centers.

There is a minimal amount of storage within the Data Centers and computer rooms. Most items are stored remotely or in two door cabinets. The storage of hardware, supplies, and packing materials can be a major source of contamination. Also many of these same materials are flammable and pose a fire hazard.

When it comes to dirt in a Data Center, what you can't see is as important as what you can see. Twice a year, the Computing Division employs specialized Data Center cleaners to perform a thorough cleaning of the facilities. The Computing Division makes this significant investment to minimize air borne particles that enter the computing equipment and to reduce maintenance and filter replacement on computer room air conditioning units.

Thanks for your help and assistance in keeping the Data Centers and computer rooms clean and operating at their full capacity.